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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,154

02/13/2006

Mitsuo Kimura

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IP GROUP OF DLA PIPER US LLP
ONE LIBERTY PLACE
1650 MARKET ST, SUITE 4900
PHILADELPHIA, PA 19103

EXAMINER

FOGARTY, CAITLIN ANNE

ART UNIT

PAPER NUMBER

4116

MAIL DATE

DELIVERY MODE

11/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,154	KIMURA ET AL.	
	Examiner	Art Unit	
	Caitlin Fogarty	4116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 13-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/13/2006, 11/6/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1 – 12, drawn to a high strength stainless steel pipe.

Group II, claim(s) 13 – 23, drawn to a method for manufacturing a high strength stainless steel pipe.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Unity exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding claimed technical features. The expression “special technical features” is defined as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art.”(Rule 13.2). The question of unity of invention has been reconsidered retroactively by the examiner in view of the search performed; a review of Kushida et al. (US 6,379,821 B2) makes clear that the claimed species is not novel over the prior art. Kushida et al. disclose a stainless steel pipe with an overlapping composition with that of the instant application in col. 3 line 3 to col. 4 line

17. Furthermore, this reference appears to demonstrate that the technical feature (i.e. the composition of the stainless steel pipe) does not define a contribution which each of the inventions, considered as a whole, makes over the prior art. Thus, lack of unity becomes apparent “a posteriori” after taking the prior art into consideration.

Accordingly, the prior art of the record supports restriction of the claimed subject matter in to the groups as mentioned immediately above.

3. During a telephone conversation with T. Daniel Christenbury on November 9, 2007 a provisional election was made without traverse to prosecute the invention of Group I, claims 1 – 12. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13 – 23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a

matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Status of Application

6. Claims 1 – 12 are pending and presented for the examination. Claims 13 – 23 have been withdrawn from consideration

Priority

7. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

8. The two information disclosure statements (IDSs) were submitted on February 13, 2006 and November 6, 2006, respectively. These submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner. Please refer to applicant's copy of form PTO-1449 submitted herewith.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. The term "about" in claims 1 – 12 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kushida et al. (US 6,379,821 B2).

In regards to claim 1, the abstract and col. 3 line 3 to col. 4 line 17 of Kushida et al. teach a high strength stainless steel pipe for use in oil wells, which has superior corrosion resistance with a clearly overlapping composition as shown in the table below.

Element	Claim 1 (mass %)	Kushida et al. (mass %)
C	0.005 – 0.05	≤ 0.05
Si	0.05 – 0.5	0.01 – 1
Mn	0.2 – 1.8	0.05 – 2
P	≤ 0.03	≤ 0.025
S	≤ 0.005	≤ 0.01
Cr	15.5 – 18	9 – 20
Ni	1.5 – 5	0 – 9
Mo	1 – 3.5	0 – 5
V	0.02 – 0.2	0 – 0.5

N	0.01 – 0.15	≤ 0.02
O	≤ 0.006	≤ 0.01
Fe + impurities	Balance	Balance

Equations (1) and (2) recited in claim 1 would be satisfied by the compositional ranges of the stainless steel disclosed by Kushida et al. because they either overlap with or enclose the compositional ranges of claim 1 required to satisfy the equations.

Claim 2 recites that the stainless steel of claim 1 further comprises about 0.002 mass% to about 0.05 mass% of Al. In col. 3 line 3 to col. 4 line 17, Kushida et al. teach that the stainless steel may also contain 0.001 – 0.1 mass% Al which encompasses the range of claim 2.

Claim 3 recites that the stainless steel pipe of claim 1 has a content of C in the range of about 0.03 mass% to about 0.05 mass%. Claim 4 recites that the stainless steel pipe of claim 1 has a content of Cr in the range of about 16.6 mass% to less than about 18 mass%. Claim 5 recites that the stainless steel pipe of claim 1 has a content of Mo in the range of about 2 mass% to about 3.5 mass%. These recited ranges are still within the ranges disclosed by Kushida et al.

Claim 6 recites that the stainless steel of claim 1 further comprises about 0.5 mass% to about 3.5 mass% of Cu and claim 7 further limits the range of Cu from about 0.5 mass% to about 1.14 mass%. In col. 3 line 3 to col. 4 line 17, Kushida et al. teach that the stainless steel may also contain 0 – 5 mass% Cu which encompasses the recited ranges of claims 6 and 7.

Claim 8 recites that the stainless steel of claim 1 further comprises at least one element selected from the group consisting of about 0.03% to about 0.2% of Nb, about

0.03% to about 0.3% of Ti, about 0.03% to about 0.2% of Zr, about 0.2% to about 3% of W, and about 0.0005% to about 0.01% of B on a mass percent basis. In col. 3 line 3 to col. 4 line 17, Kushida et al. disclose that the stainless steel may also contain $\leq 0.1\%$ Ti, 0 – 0.5% Zr, and 0 – 6% W which overlap with the ranges recited in claim 8.

Claim 9 recites that the stainless steel of claim 1 further comprises about 0.0005 mass% to about 0.01 mass% of Ca. In col. 3 line 3 to col. 4 line 17, Kushida et al. teach that the stainless steel may also contain 0 – 0.5 mass% Ca which encloses the recited range of claim 9.

Since the claimed compositional ranges either overlap or are within the ranges disclosed by Kushida et al., a prima facie case of obviousness exists. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the stainless steel pipe composition from the stainless steel composition disclosed by Kushida et al. because both steels are used to make pipes.

Claim 10 recites the stainless steel of claim 1 with a texture containing a martensite phase as a primary phase and a ferrite phase at a volume fraction of about 10% to about 60%. Claim 11 further limits claim 10 wherein the ferrite phase has a volume fraction of about 15% to about 50%. Claim 12 also further limits claim 10 and recites that the texture further contains an austenite phase at a volume fraction of about 30% or less. In col. 3 lines 46 – 52, Kushida et al. discloses that the stainless steel pipe is constituted of 55-90% martensite phase and 10-45% ferrite phase. These ranges overlap with the recited ranges of claims 10 and 11. Although Kushida et al. does not

disclose that the stainless steel contains 30% or less of an austenite phase, the recited range in claim 12 includes 0% austenite phase. Since the claimed ranges overlap with the ranges disclosed by Kushida et al. a prima facie case of obviousness exists.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1 – 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 25 – 36 of copending Application No. 10/576,885. Although the conflicting claims are not identical, they are not patentably distinct from each other because the composition of the high strength stainless steel pipe recited in Application No. 10/576,885 overlaps in scope

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with the composition of the stainless steel pipe recited in claims 1 – 12 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

15. No claim is allowed. All pending claims are rejected.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caitlin Fogarty whose telephone number is 571-270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CF

/Vickie Kim/

Supervisory Patent Examiner, Art Unit 4116